B.A.R.G. News

OFFICIAL NEWSLETTER OF THE BALLARAT AMATEUR RADIO GROUP INC.

Volume 20 Issue 3 | VK3BML | March 1997

97/3 2

BALLARAT AMATEUR RADIO GROUP INC.
OFFICE BEARERS - 1996 / 1997

COMMITTEE (IN BOLD TYPE)			WORK	HOME
PRESIDENT	**GORDON CORNELL**	**VK3FGC**	**391135**	**392427**
VICE PRESIDENT	**MARY CURNOW**	**VK3FMC**		**301927**
IMM.PAST PRESIDENT	**BOB TERRILL**	**VK3BNC**		**395317**
SECRETARY	**GEOFF SMITH**	**VK3ADB**	**358601**	**332112**
TREASURER	**MURRAY FELSTEAD**	**VK3AAI**	**412121**	**412234**
EDUCATION OFFICER	**TOM GEORGE**	**VK3DMK**	**327234**	
MEMBERS' REP.	**DOUG KAY**	**VK3KAY**		**392778**
MEMBERS' REP.	**CHARLIE STEWART**	**VK3DCS**		**317425**
QSL MANAGER	**DARYL QUIRK**	**VK3XDQ**		**054-762689**
FACILITIES / BUILDINGS	**LES SNIBSON**	**VK3JEM**		**347815**
MEMBERSHIP SEC.	WENDY KEALL	VK3HWK		054-762689
TECH. OFFICER	IAN McDONALD	VK3AXH		
TECH. OFFICER (DIGITAL)	TOM GEORGE	VK3DMK	327234	
NEWSLETTER EDITOR	RICHARD VOSS	VK3JFL	041-9594944	326048
NET CO-ORDINATOR	REG CARTER	VK3CAZ		417585
AWARDS MANAGER	RON WATKINS	VK3ZHH	667200	327141
HISTORIAN	RICHARD VOSS	VK3JFL	041-9594944	326048
EXAMINATIONS OFFICER	CHARLIE STEWART	VK3DCS		317425
PUBLICITY OFFICER	NORM D'ANGRI	VK3LBA		341613
PROPERTY OFFICER	JEFF PIGDON	VK3PAP	311211	327041
WICEN CO-ORDINATOR	GORDON CORNELL	VK3FGC	391135	392427
HAMVENTION CO-ORD.	TOM GEORGE	VK3DMK	327234	
ASST. H'VENTION CO-ORD.	CHRIS KENSELL	SWL	327888	018-508174

DISCLAIMER: While every care is taken reporting events and reproducing articles, BARG Inc. or its Officers do not accept any liability for any disputed articles, views or comments expressed in this newsletter. Projects are assumed to have been validated by contributors. Reproduction by other Radio Clubs is welcomed subject to acknowledgement.

CLUB STATION

VK3 BML

REPEATERS
VK3RBA (Voice) 146.750 MHz. - Mt.Buninyong.
VK3RBS (Voice) 146.900 MHz. - Smeaton Hill
VK 3RPC (Packet) 144.750 MHz. - Mt.Warrenheip.
VK3RBU (Voice) 438.475 MHz. - Mt.Hollowback.
VK3RMB (Beacon) 432.535 MHz. - Mt.Buninyong.
VK3RBV (ATV) 426.250 MHz. - Ballarat

ACTIVITIES CLUB NET: Thursday nights at 8 pm. (8.30 pm during Daylight Saving). Freq: 3.610 MHz +/- QRM.
2 METRE SCRAMBLE: Sunday Nights at 7.50 pm. Freq: 146.425 to 146.600 MHz. Inc,
Call back held on VK3RBA 146.750 MHz.
Logs **monthly** to D.Quirk - P.O. Box 78 - Newstead 3462 (or Meeting) to qualify.
MEETINGS: General Meeting : Last Friday of each month (except December) at 7.30 pm.
. Venue: Club Rooms - Ballarat Airport - Unit 31 - Off Learmonth Road - Ballarat.
FOX HUNTING: As arranged during the year.
HAMVENTION : Last weekend in October each year at Ballarat Showgrounds.

PLEASE ADDRESS ALL CORRESPONDENCE to: The Secretary - BARG Inc. Box 1261 Mail Centre Ballarat 3354

The Minutes

of the General Meeting held on 31st January 1997

The meeting opened at 7.45 pm. President Gordon warmly welcomed all, and extended best wishes to those unable to attend due to ill health.

APOLOGIES were then accepted on behalf of the following members, VK's JFL, CFB, BNC, Val, LBA, NAY, NIZ, SE, and N9NAY. Moved / Sec. DMK/XDQ

MINUTES of the previous meeting were circulated and accepted as presented.
Moved/Sec. BVI/CAZ

CORRESPONDENCE. Amateur Radio Magazine
DL UHF Magazine
EMDRC
HBARC
Concord Insurance
Madden & Assoc.
W F Coltman
Ballarat Locksmiths
Ballaarat City Council. Moved /Sec CIS/DCS

TREASURERS REPORT John Graham - Newsletter $37.80
Postage $38.43
Ballarat Locksmiths $416.00 Moved/Sec AAI/CFH

REPORTS **QSL'S** 42 cards in — Nil out.
Cards available for MBM, DET, CCB, CAZ, LU, AIG, XDQ.
Tnks. Daryl.

MEMBERSHIP 64 fully paid up members at this time. Tnks. Wendy.

EDUCATION Classes begin 18th. February - Run 18 weeks
Three candidates at this point! Tnx Tom.

WICEN Group advised of "NEED" during recent bushfire.
PLEASE ensure that you have re-registered and have equipment on hand.
Ski 80 on next weekend. Tnks. Gordon.

GENERAL BUSINESS

Jim AZK advised of used Amateur equipment available from SMB.
Tom DMK was authorised to make an offer of $570 on behalf of BARG.
Moved/Sec XDQ/CAZ

Lease BCC - Letter from Ballarat City Council was presented to the meeting and the somewhat "inflated terms of leasehold" were (*discussed)* at great length. (Copy attached). The agreed figure to be $1500.00 p.a. for an initial three years - continued if desired, up to a period of 15 years.
It was moved Daryl XDQ and seconded Charlie DCS that the B.A.R.G. Inc. proceed with the lease under the aformentioned terms.
Carried unanimously & without dissent!!
It was also proposed that President Gordon pursue offer of "establishment of new club" grant from BCC and advise the meeting.
It was also discussed that the meeting accept offers by Chris as "Concierge" and Doug as "Groundsman" XDQ/DCS
Insurance risk to be considered by Committee.

Meeting Closed at 8.27 pm.
Next Meeting February 28th. Have a great month Cheers Geoff VK3ADB
Finally Free cheese only comes on mouse traps.

97/3 4

The Minutes

of the General Meeting held on 28th February 1997.

President Gordon opened the meeting at 7.55 pm and warmly welcomed all. Best wishes were extended to those unable to attend due to ill health.

APOLOGIES were then accepted on behalf of the following members
VK,s JFL, CFB, BNC, CB, NIZ, CIS, NAY, DS, VCW, LBA, Val, and N9NAY.
Moved/Sec DMK/CAZ

MINUTES of the previous meeting were circulated with minor correction (insertion of "discussed" CAZ/CFH) and accepted as presented. Moved/Sec ADB/DMK

CORRESPONDENCE Amateur Radio Magazine.
E.M.D.R.C.
CAPRICORNIA
WIA - Subscriptions
Aust. Post - Box.

TREASURER'S REPORT - Accounts

Concord Insurance	$137.00
Midvale Tuck	$19.75
SMB Amateur Equip.	$300.00
Doug Kay - Sprinkler / Clubroom	$11.90
Doug Kay Xtal 828	$34.00

Moved/Sec AAI/BFI

EDUCATION Classes to be conducted at Clubrooms. Tnx Tom.
EXAMINATIONS Likewise Tnx Charlie.
TECH. COMMITTEE - Nil
NET & SCRAMBLES - Continuing interest. !!!
QSL's Cards for DET, AIG. 140 out.
WICEN See FGC for registration. **MAJOR EXERCISE 4th May** !
Red Cross will supply refreshments.
Presentation to John CFH "Train the Trainer" Well done John.
WESTERN ZONE
Dick and George reported on activities & check ins on Monday nights - Tnks fellas.
FACILITIES
Vote of thanks was moved to Paul Bruty VK3BWC for his contribution of paint for use at the Clubrooms. Moved/Sec DCS/CAZ
Thanks to volunteers for construction and painting at "The Shed" Tnks fellas. DOK/HWK

GENERAL BUSINESS
Tom DMK spoke further on the equipment purchased from SMB for $300. This included:
FRG7 , Quad Hub. Iambic Key. Microphone. Micro Wave module.

JOHN MOYLE to be run from the clubrooms on 14/15 March. MaryFMC to co-ordinate.
PROGRESS of link (RPC) to be investigated ! ! ! ! !
Treasurer to arrange US funds for QEX subscription. Moved / Sec XDQ/DMK
Meeting closed at 8.35 pm.

Next meeting APRIL 4TH. Have a great month - Cheers de Geoffery VK3ADB.

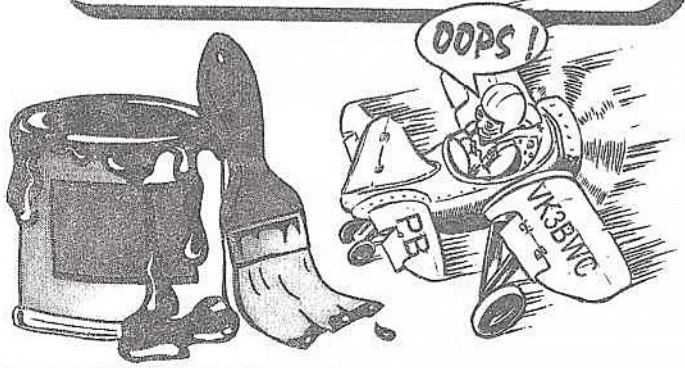
Finally Before long, a clear sign of deprivation may be a one telephone car !!!!

Conroy's 3D Paint City

see Paul Bruty - VK3BWC

104 Skipton Street Ballarat
Phone - 5331-1680

The Paint Specialists who will assist you with all of your Painting Problems



B.A.R.G. is indebted to Conroy's for their help with the supply of paint for the Airport Clubrooms.
You may like to support them when you next "slap on a bit of paint".

Hewitt & Whitty

CORNER CARNGHAM RD. AND WILTSHIRE LANE

QUALITY CASTROL PRODUCTS

GLASS & CHROME CLEANER
500 ml spray

CARECLEAN PLUS Hand Cleaner
100 grm. Tubes

WINDSCREEN WASHER CONCENTRATE
500 ml.

ENGINE DEGREASER
400 grm. Aerosol and 1 ltr.Tins.

DWF for TIGHT NUTS.

Bill VK3PH 73

FOR SALE

56ft Tilt-over TOWER includes 2 el. Tri-Quad, Rotator, Guy Wires.
BUYER TO REMOVE

Contact LES VK3JEM
☎ 03-5334 7815

BALLARAT PAGING AND COMMUNICATIONS
A DIVISION OF ROBERT BELL & ASSOCIATES P/L. ACN 006 956 501

TWO WAY COMMUNICATION SPECIALISTS

OPTUS PREMIUM DEALER

32B Doveton St. Nth. - Ballarat
☎ 03-5331 7922
ICOM MOTOROLA TAIT
KENWOOD UNIDEN

FOR SALE

PYE VHS Video Recorder - $50.00 ONO
SHARP 4 Head L.P. Video Recorder
(Needs Minor Repair.) - $40.00
2off VHF B&W TVs - $40 the pair.
General Electric B&W VHF TV $20 ONO
CONTACT - BARRY VK3NBM 03-5339 2873

THIS NEWSLETTER HAS BEEN PRINTED BY

SUPERRUN PRINTS
Wendouree

PRINTING
SCREENPRINTING
TEE SHIRT PRINTS

JOHN GRAHAM ☎ 03-5339 1097

A NEW DIRECTION IN LIFE ?

A VHF direction finding antenna from the shack of VK3YZR

Ok, so it's about time I wrote something else to help pad out the monthly mag. Can't do it every month, I'd run out of things to say! This time we'll have a look at a simple, VHF direction finding antenna and, Once again, I promise I won't get too technical!

Direction finding antennae can be lots of fun for things like Fox hunting or a little Sleuthing to find the location of that new transmitter in town, and they are down right handy for tracking down the source of interference, be it a stuck transmitter, a rascally power line noise source or an interfering transmission, intentional or accidental! My design criteria was for a small antenna that could mount easily onto a Hand Held transceiver or scanner with much the same footprint as the standard "Rubber Duck", and was easy to use to gain a direction towards the target transmitter.

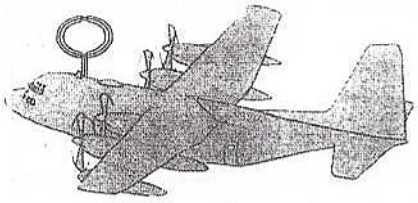
The basic design is a time honoured HF direction finder that I pinched from that hallowed tome, The ARRL Antenna book, for a shielded loop at 28Mhz. Chapter 14, page 12, figure 20 for those of you with the 16th edition! The design calls for an 18inch piece of co-ax, with a 1 inch split in the outer shield at the top of the loop. The shield is connected on both sides to the receiver ground. The inner conductor is connected to the receiver on one side, with the other side connected through a series of parallel capacitors to the receiver. On studying the design it occurred to me that the capacitor network could be replaced with a single trimmer capacitor of a value more appropriate for VHF and the loop size might as well be a 1/4 wave at 146Mhz. The Trimmer I chose was the green 1.8-22pF item from Tricky Dickies.

Building the direction finder is relatively simple, measure and cut a piece of RG-58 for the middle of the frequency range your interested in, 146Mhz makes a good starting point, at 510mm, covering from down around the aircraft band to above the Police band. Remember to leave some extra to work with at the ends, I find 10mm is good. Cut another piece of RG-58 about 50mm long, again with enough extra to put a BNC connector on one end and join to the loop at the other. Measure the half way point along the loop, carefully remove about 10mm of the sheath and shield from around the centre insulator and cover it back up with some tape or heat shrink tubing. Join the center conductor of one end of the loop to the two common legs of the Trimmer, then join the other end of the loop to the center of the short piece and to the other leg of the Trimmer capacitor, join both ends of the loop shield to the shield of the short piece and cover it up with some tape.

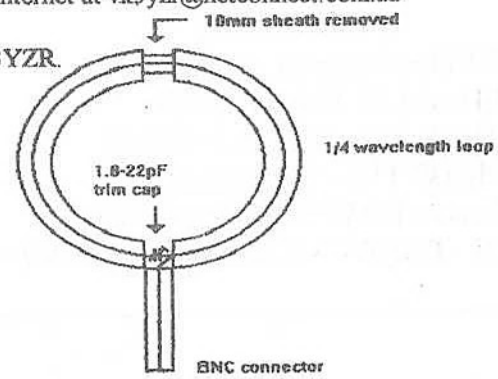
Using the direction finding antenna is also easy, mount it in place of your "Rubber Duck" after you have found the frequency of the transmitter you want to locate and tune the trimmer for maximum signal strength, the loop will exhibit deep null's when facing side on to the target transmitter and a rise in signal strength when looking through the loop towards the transmitter. When held at elbows length from your body, your body will provide enough blocking to give a deep fade to the signal when facing away from the transmitter. Enjoy!

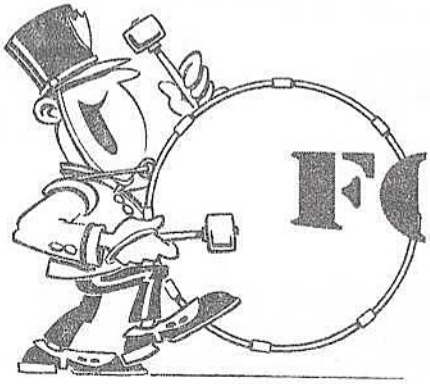
So, That's it for now. hope some of you have a go at this design and see for yourselves how it works. It might not win you the Fox Hunting Championship at Mt Gambier this year, but I think you'll find it a darn handy, simple piece of equipment to have lying about! Feel free to call me or send me a message to VK3YZR@VK3SSS on paket radio or on the internet at vk3yzr@netconnect.com.au

Cheers for now DE Peter VK3YZR.



Suggestion only of possible useage. Hi!



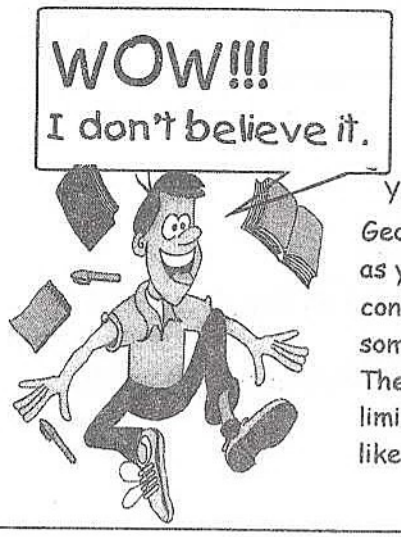


FOR SALE

BALLARAT AMATEUR RADIO GROUP INC.

ANTENNAS	6 METRE - 4 ELEMENT - DOUBLE SPACED 2 METRE - 3 ELEMENT
RECEIVERS	COMMAND AIRCRAFT. 1.5 - 3 MHz. 3 - 6 MHz. 6 - 9 MHz 200 - 500 KHz
TRANSMITTER	COMMAND 6 - 9 MHz.
RECEIVER	MARINE 500 KHz - 30 MHz 24 Volt with Handbook.
TEST EQUIPMENT	AUDIO SIGNAL GENERATOR 15 KHz - 150 KHz UNIVERSAL RF BRIDGE - WAYNE KERR.
COMPUTER and MONITORS	MONOCHROME EGA and DRIVER CARD.
TRANSCEIVERS	FM 828 VHF FM 828 UHF PLESSEY MTR 43 SUITABLE FOR 2 METRES.

CONTACT BOB VK3BNC - ☎ 5339 5317



BUT IT'S TRUE ! !

YES, it's true. - I have got an article left over (thanks Arthur, Geoff and Peter) which will be a start for next month's Newsletter. But as you realise - one article does not a newsletter make, So if you can contribute, please put pen to paper and tell us a story, or at least give us some ideas on the type of articles you would like read in the newsletter. The time which can be spent on producing a monthly newsletter is limited, so we rely on members for input for publication. If you should like to have a talk about how to go about it, give me a ring on 5334-1613.

Norm VK3LBA - Asst.Ed.

97/3 8

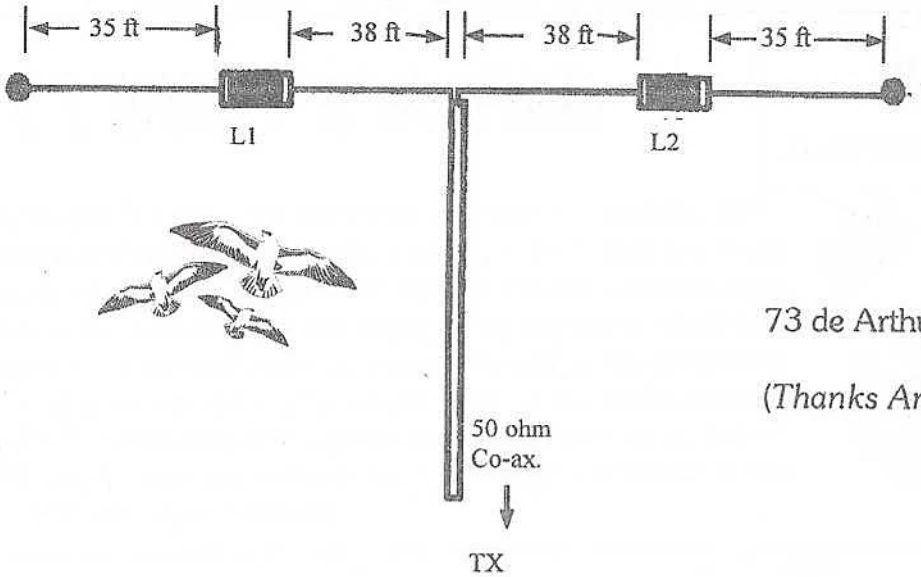
TRY TOP BAND

By Arthur Solomon
VK3ENT

160 metres or as our British friends used to call it, "Top Band", is usually ignored by most of us. The usual reason given for neglecting it is simply the problem of providing an adequate antenna for this band. A full length dipole cut for 1.825 MHz is approx 256 feet long, whilst a full quarter wave vertical would be 128 foot high ! Most of us do not have the real estate for the former, nor the mechanical ability for the second. This does not mean that inferior antennas cannot be put to work on this band. For instance 60 ft. of wire end fed through an ATU, or a helically wound whip, or the utilizing of an eighty metre dipole or a G5RV by strapping the feeder ends together and feeding as a top-loaded Marconi through an ATU, can each provide a fair performance on 160m, if used against a reasonable earth, but really the performance is only marginal. Or you could put up a 30 ft. vertical, feeding it through a loading coil and an ATU, provided you are prepared to work hard at providing a good earth. But candidly I do not like end-fed wires nor verticals because I find them so noisy! Dipoles, on the other hand, tend to be noise-cancelling. Give me a dipole any day! Admittedly the vertical will outperform the dipole DX-wise, but I can live with that, because my yen for DX is only moderate; if you want to compete with the big boys for DX on 160m you are going to have to put up antennas at heights of 100 ft. and beyond. Many of our amateurs do exactly that.

However, like most of us, I live in a housing area with a rather limited backyard and among people who would look askance at towers of 100 ft. and over. Since the largest dipole I can fit into my backyard is an 80m one, and even then I have to wiggle it about somewhat to actually fit it in, I have simply designed my dipole to be the same physical size as one for 80m and loaded it to resonate on 160m. It is half the normal size of a 160m dipole. Twenty years ago I compared a full size dipole over against this shortened dipole and although the former did outperform the latter, the difference was surprisingly little. My conclusion was that there was not even one "S" point difference. It certainly far out-performs the old G5RV used as a Marconi or end fed wires. This antenna can be designed for shorter lengths of wire but of course performance will be degraded.

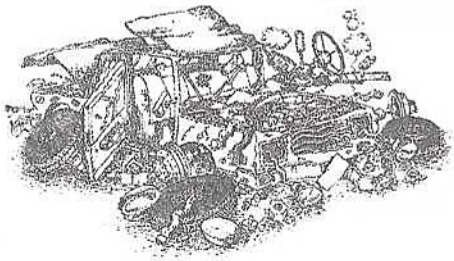
The details of this antenna are shown below. Coils L1 and L2 consist of 70 turns of No 16 enamelled wire close wound on a 7 inch length of 55 mm diameter plastic pipe. The SWR will be fairly low if you stick to these parameters. For instance I set my antenna up in the inverted -Vee mode and found that in my case the SWR varied from 2.5 to 1 at 1.860 MHz, to 1.5 to 1 at 1.80 MHz, so clearly pruning the length of the antenna could be expected to produce a low SWR across the whole of the 160m band. The other alternative is to use an ATU, which is my own preference.



73 de Arthur VK3ENT

(Thanks Arthur - Ed.)

SPEED KILLS



Have you heard of the "Darwin Award" from the U.S.? It is an annual 'honour' given to the person who did the gene pool the biggest service by killing themselves in the most extraordinary and stupid way.

Last years winner was a fellow who was killed by a Coke machine which toppled over on top of him as he was attempting to tip a free tin out of it.

This years award nominee:

The Arizona Highway Patrol came upon a pile of smouldering metal embedded into the side of a cliff rising above the road at the apex of a curve. The wreckage resembled the site of an aeroplane crash, but it turned out to be a car. The type of car was unidentifiable at the scene. The lab finally figured out what the wreckage was, and what had happened.

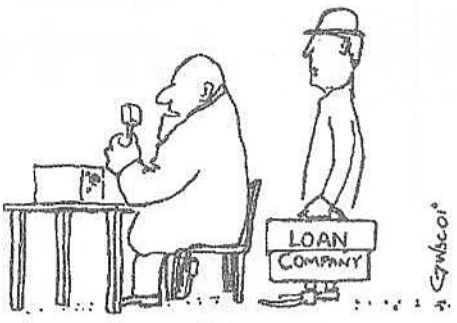
It seems that a guy had somehow got hold of a JATO (*Jet Assisted Take Off*) unit *(actually a solid fuelled rocket)* that used to be used to give heavy military transport planes an extra "push " when taking off from short airfields. He had driven his Chevy Impala out into the desert and found a long straight stretch of road. He then attached the unit to his car, jumped in, got up some speed and fired off the JATO.

The facts as best as could be determined are that the operator of the 1967 Impala hit JATO ignition at a distance of approximately 4.8 km. from the crash site. This was established by the prominent scorch marks and melted asphalt at that location. The JATO, if operating properly, would have reached maximum thrust within five seconds, causing the relatively lightweight Chevy to reach speeds well in excess of 500 km/hr and continuing at full power for an additional 20 to 25 seconds.

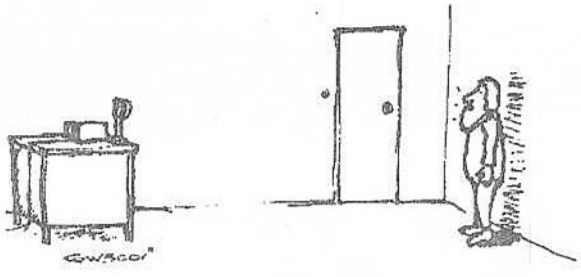
The driver, soon to be pilot, most likely would have experienced G forces usually reserved for dogfighting FA 18 pilots, basically causing him to become insignificant for the remainder of the event. However the automobile remained on the straight highway for about 4 km,15 to 20 seconds, before the driver applied, and completely melted, the brakes, blowing the tyres and leaving thick rubber marks on the road surface, then becoming airborne for an additional 2.2 km and impacting the cliff face at a height of 38 metres above road level, leaving a crater one metre deep in the rock !

Most of the driver's remains were not recovered.

Surely this only goes to show — speeding never killed anybody — but stopping did !



" .... I may have to make this my final O M ! !



"..... is this any better ? "

97/3 10

INFORMATION

COMING EVENTS.

April 4th. General Meeting (deferred March meeting).
April 16th. Committee Meeting.
May 2nd. General Meeting (deferred from April -Anzac Day)
May 4th. WICEN - MAJOR EXERCISE - REGISTER ASAP.
May 21st. Committee Meeting.
May 30th. General Meeting - **Junk Auction.**
Monday Nights - Construction Nights.
Sunday Nights. 2M Scramble - 7.50pm. 146.425 to 146.600 MHz.
Thursday Nights- Club Net - 3.610 MHz. - 8pm (8.30pm in Daylight Saving)
Thursday Nights - School at Clubrooms.
4th. Wednesday each month -WICEN Training nights.

This edition of BARG NEWS was produced by

Nor-Val Graphics
Ballarat
29 LAWRENCE ST.
ALFREDTON 3350
03 5334 1613

B.A.R.G.

The Ballarat Amateur Radio Group Inc.

A group of radio enthusiasts licensed to experiment with local and international radio communications on an amateur basis.

NEW MEMBERS ALWAYS WELCOME.

OFFICIAL NEWSLETTER OF THE BALLARAT AMATEUR RADIO GROUP INC.

B.A.R.G.
NEWS

MR. G. CORNELL VK3FGC
304 WENDOURREE PDE.
BALLARAT VIC 3355

SURFACE MAIL

IF UNDELIVERABLE
PLEASE RETURN TO:
P.O. BOX 1261
MAIL CENTRE
BALLARAT 3354

BALLARAT AMATEUR RADIO GROUP INC.

BALLARAT WEST PAID 2 - APR 1997